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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,401	01/04/2005	Hiroshi Shinriki	264189US3PCT	2965
22850 7590 08/20/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER EL ARINI, ZEINAB	
			ART UNIT 1746	PAPER NUMBER
			NOTIFICATION DATE 08/20/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<p align="center">Office Action Summary</p>	Application No. 10/519,401	Applicant(s) SHINRIKI ET AL.	
	Examiner Zeinab E. EL-Arini	Art Unit 1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-17,35-49,51,53 and 54 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3-17,35-49,51,53 and 54 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/04/05</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-4, 8-9, 11-12, 14-17 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP10-321528 (JP'528).

JP'528 teaches a method of cleaning a substrate processing apparatus comprises exhausting the space, supplying cleaning gas and the removing step, the cleaning gas is spread along a surface of the substrate- supporting member, the inner chamber, and the heating steps as claimed. See the abstract, and the document in general (English translation).

JP'528 does not teach the elevating temperature and the cooling as claimed.

It would have been obvious for one skilled in the art to adjust the temperature to obtain optimum results. This is because elevating the temperature depends on the type of the substances to be removed and the type and thickness of the oxide film during processing the substrate.

3. Claims 5-7, 10, 13, and 35-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'528 in combination with JP 2001-176807 (JP'807) and JP 2001-131753 (JP'753).

JP'528 as discussed supra does not teach the oxides, using different exhausting system, and the cleaning gas includes ketone as claimed.

JP'807 discloses the cleaning gas includes the ketone, and the oxides as claimed. See the document in general (English translation).

It would have been obvious for one skilled in the art to use the ketone taught by JP'807 in the system taught by JP'528 to enhance the cleaning process. This is because both references are from the same technical endeavor, which is cleaning a substrate processing apparatus by using an active gas.

Re claims 13 and 44, JP'753 discloses the exhausting system as claimed. See Figures 1-2, and the document in general (English translation).

It would have been obvious for one skilled in the art to use the exhausting system taught by JP'753 in the cleaning system taught by JP'528 to improve the cleaning process.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 49, 51 and 53 are rejected under 35 U.S.C. 102(b) as being anticipated by JP'528.

JP'528 discloses a substrate processing system comprises an inner chamber, an outer chamber accommodating the inner chamber, a cleaning gas supplying

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unit, a chamber heater, and an exhaust unit as claimed. See Figures 3-5, and the document in general.

The amendment to the claims is non-compliant amendment, because each claim has not been provided with proper status identifier, and as such, the individual status of each claim (see claims 3-17, 36-48, and 51) cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Cancelled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-Currently amended). Also the amendment to claims 1, 35, and 49 is non-compliant amendment because it does not include markings or underlining.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nishimura discloses a method of cleaning a process tube with CLF3 gas and controlling the temperature of process.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zeinab E. EL-Arini whose telephone number is (571) 272-1301. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Zeinab E. EL-Arini
Zeinab E. EL-Arini
Primary Examiner
Art Unit 1746

ZEE
8/10/07